

## Temporary Barriers Project

The South Delta Temporary Barriers Project, initiated as a test project in 1991 and extended for five years in 1996 and again for seven years in 2001, was partially in response to a 1982 lawsuit filed by the South Delta Water Agency. The project consists of four rock barriers across South Delta channels. Of the four rock barriers, the Head of Old River (HOR) barrier serves as a fish barrier<sup>1</sup> and has been in place most years since 1963 between September 15 and November 30. It was also installed in the spring between April 15 and May 30 of 1992, 1994, 1996, 1997, 2000, 2001, 2002, 2003, and 2004 (high San Joaquin River flows prohibited installation in 1993, 1995, 1998, 1999, and 2005). The remaining three barriers serve as agricultural barriers<sup>2</sup> and are installed between April 15 and September 30 of each season. The Old River near Tracy barrier (ORT) has been installed since 1991 and the Middle River barrier (MR) has been installed since 1987. A rock barrier in Grant Line Canal (GLC) was first installed in spring 1996, and has since been installed in 1997, 1999, and 2000 through 2005. The four rock barriers were not installed in 1998 due to high San Joaquin River flows.

Although the South Delta Temporary Barriers Project has been in place since 1991, the Middle River barrier and the fall Old River at Head barrier have been installed in earlier years under different programs.

Objectives of the program are to:

- Increase water levels, circulation patterns, and water quality in the southern Delta area for local agricultural diversions, and
- Improve operational flexibility of the State Water Project to help reduce fishery impacts and improve fishery conditions.

Water levels and water circulation in the South Delta have improved with agricultural barrier installation. Migration conditions for San Joaquin River salmon have improved when the HOR barrier was installed. Consequently, it is essential to continue barrier installations to protect San Joaquin River salmon migrating through the Delta, and to provide an adequate agricultural water supply for south Delta farmers. An adequate agricultural water supply must satisfy quantity, quality, and channel water levels to meet the reasonable and beneficial needs of water users in the South Delta Water Agency.

The installation and removal dates of the barriers are based on the US Army Corps of Engineers 404 Permit, the California Department of Fish and Game 1601 Permit, and various Temporary Entry Permits required from landowners and local reclamation districts.

Continued installation of the barriers will allow DWR to perform further monitoring, as

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<sup>1</sup> This barrier is referred to as a “fish barrier” because it is intended to primarily benefit migrating San Joaquin River chinook salmon.

<sup>2</sup> These barriers are referred to as “agricultural barriers” because they are intended to primarily benefit agricultural water users in the south Delta.

required, to determine potential hydraulic effects on south Delta channels, and biological effects on vegetation and fisheries within the south Delta. The information gathered will be used to assist the development of long-term solutions to agricultural water supply problems and improvements to salmon migration. Using temporary barriers will also allow DWR to improve permanent barrier designs and review alternative timing operations for the permanent barriers. The permanent barriers are a major component of the South Delta Improvements Program (SDIP) which is currently in the planning, design, and environmental documentation development processes. Permanent barriers are planned for 2007-2008 construction.